SCO	**M2: Demonstrate an understanding of the imperial system by: describing the relationships of the units for length, area, volume, capacity, mass and temperature,** [C, CN, ME, V]

ACHIEVEMENT INDICATORS

- Explain how the imperial system was developed.
- Identify commonly used units in the imperial system, and determine the relationships among the related units.
- Identify contexts that involve the imperial system.
- Explain, using examples, how and why fractions are used in the imperial system.
- Write a given measurement expressed in one imperial unit in another imperial unit.

The Imperial System

The Imperial System was developed over hundreds of years in the UK, then the French developed the Metric System in 1670, which soon spread through Europe. However, the USA and a few other countries still prefer feet and inches.

Examples of Imperial measures:
Length: inches, feet, yards
Area: square feet, acres
Weight: pounds, ounces
Volume: fluid ounces, gallons, pints, quarts

- In the imperial system, the base unit for measuring length is the foot and the base unit for measuring volume is the pint.

Imperial Relationships

12 inches (in. or ")= 1 foot (ft. or ')
3 feet = 1 yard (yd.)
1760 yards = 1 mile (mi.)
5280 feet = 1 mile

1 yd = 3 feet = 36"

1 yd = 3 feet
1 yd = 36"
3 feet = 36"

Mental Math Question

In 1995, while playing for the Mount Allison Mounties, Eric Lapointe ran the ball for 311 yards. How many feet is that?

Imperial Conversions

- In order to solve an imperial measurement problem, you may have to convert the given measurements into common units. To convert from one imperial unit to another imperial unit, use a conversion factor.

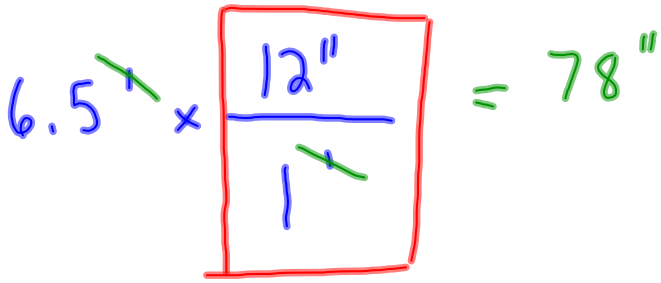
- A **conversion factor** is a fraction with the numerator containing the units to which you want to convert. The denominator contains the original units in which the measurement was taken.

1 foot = 12 inches

$\frac{1 \text{ foot}}{12 \text{ in.}}$ or $\frac{12 \text{ in}}{1 \text{ foot}}$

Example: How many inches is 6.5 feet (6.5')?

Solution: We know that there is 12 inches in 1 foot. So...



$6.5' \times \frac{12''}{1'} = 78''$ There are 78 inches in 6.5 feet.

Wednesday, April 25

*If you did not write your test on Thursday or pass in your assignment you need to come see me asap. I will be in my room at lunch hour today! (I will not be here during lunch hour on Thursday or Friday).

Today:
-Check answers to the assigned practice questions
-Begin Lesson 3 (Imperial/Metric conversions)
-Practice questions

Imperial Conversion Exercise

1) 16 in. = _____ ft.

2) 2 mi. = _____ yd.

3) 4 ft. = _____ in.

4) 2.5 ft. = _____ in.

5) 1200 yd. = _____ mi.

6) 56 in. = _____ ft.

7) 7 yd. = _____ ft.

8) 3520 yd. = _____ mi.

9) 24 ft. = _____ yd.

10) 1760 yd. = _____ in.